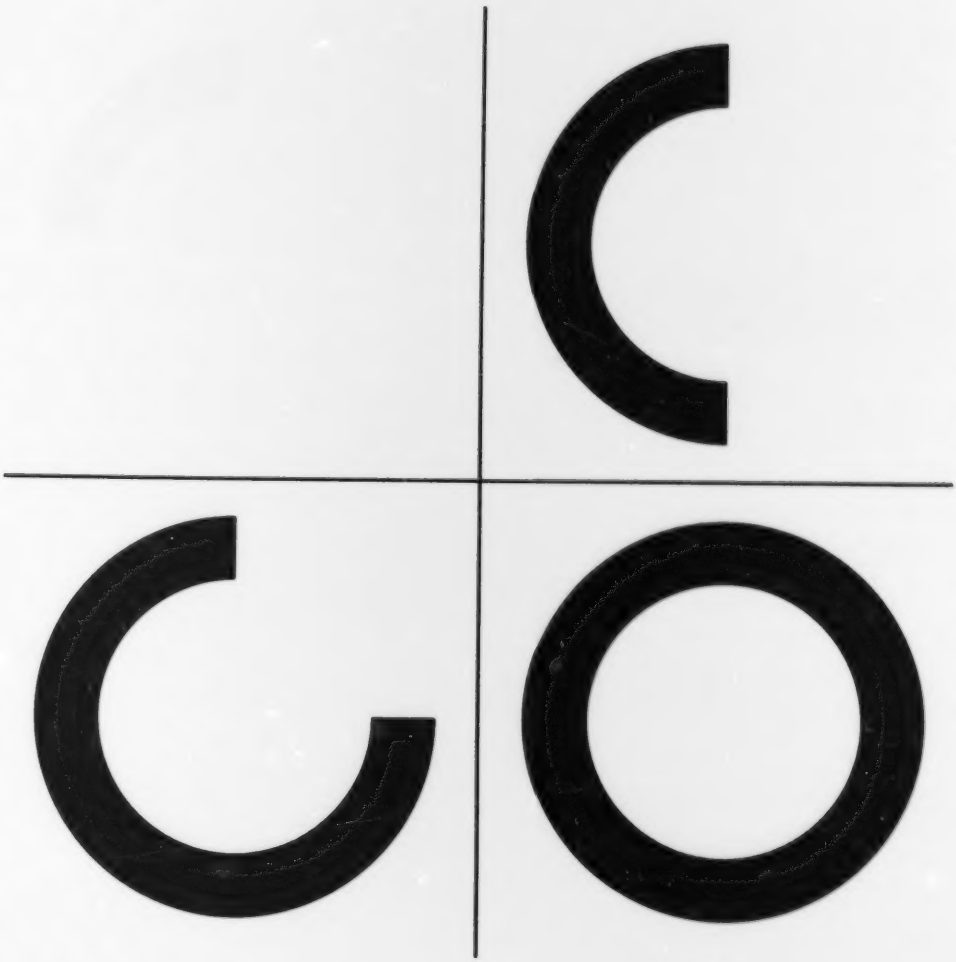
1985-1986

The Ontario Mental Health Foundation



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The Ontario Mental Health Foundation

Established by Special Act of Legislature of the Province of Ontario, 1960-61.

Members as at March 31, 1986

Donald Brookes, B.Comm., Chairman, Don Mills

Peter Lush, CPM
Vice-Chairman, Burlington

Charles Birkett, M.D.
Kettleby

Sidney Folb, Ph.D.
Toronto

Sidney Freedman, LL.B.
Toronto

John Hughes
Toronto

George Kerr, Q.C., M.P.P.
Burlington

Marlene Longdon, M.Sc.N.
Burlington

Abbyann Lynch, Ph.D.
Toronto

Joan Milling, M.A.
Toronto

Barry Morrison, B.A.
Mississauga

Howard Richardson, M.S.
Willowdale

Douglas Shields, C.A.
Richmond Hill

Wayne Squibb, B.A.
Toronto

Ann Van Fossen, M.A.
Mississauga

Donald Webster, B.Sc.
Toronto

Peter Wendling, LL.B.
Islington

Donald Zarfas, M.D.
London

Personnel:

Dugal Campbell, Ph.D.,
Scientific Consultant

Margaret Clark,
Executive Director

Louise Brown

Anita Macatangay

Jessie Paterson

Audrey Stefanovich

Chairman's Report

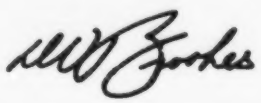
During the 1985/86 fiscal year, the Ontario Mental Health Foundation continued its program of funding excellence in individual fellowships and research grants. Details of these awards are set out on pages 7 to 15 of this report.

The Ontario Mental Health Foundation sees itself as a critical component in adequately funding the needs of mental health researchers and research. Beyond the need to fund specific worthwhile projects which promise significant contributions to the mental health field, we are impressed by the shortage of individuals who choose research as their main field of endeavour and the inadequacy of co-ordinated funding to support their scholastic development. Without nuturing tomorrow's researchers progress toward solutions to the pressing mental health problems of our society will ultimately be severely limited.

During the year we expanded our activities to include a one day workshop on the evaluation of "front line" mental health services. The seminar focussed on the needs of practitioners in the field and the research methods they can employ to assess the effectiveness of their services. The workshop was attended by 120 representatives from across Ontario and well received by the participants. Summaries of the papers presented at the workshop are available from the Foundation.

It is encumbent on all organizations from time to time to examine themselves, their mission and how well they are accomplishing it. This process began during the year at the Foundation. We started by commissioning an external evaluation by a committee of respected independent mental health professionals. The results of this will be complete in the next fiscal year. At the same time we have begun to look at ourselves with a view to developing a long range plan to be complete by the Fall of 1986. This will involve the members of the Foundation, its Fellowships, Research and Advisory Committees, the Government and those who have or will depend on the Foundation for their progress in mental health research.

May I take this opportunity to once again offer my sincere appreciation to all connected with the Ontario Mental Health Foundation's efforts during the past year. Many people's hard work — staff, volunteers and scientists have contributed to its success.



Donald V. Brookes, Chairman
June 1986

Scientific Report

During 1985-86 three new tasks were undertaken:

1. The Foundation set up a Task Force on Epidemiology. This task force has endeavoured to define a minimum data set which could be collected for all individuals who use psychiatric facilities in Ontario. The task force began from the premise that, although a substantial effort is now put into collecting information, it is not done in the way which yields optimum results for either scientific or administrative purposes. The aim of the task force is to develop a set of recommendations which will merit the support of all institutions and which might provide a basis for a uniform and Province-wide system of data collection.

2. A second task was to prepare a response to the report of the Electroconvulsive Therapy Review Committee and this was done following consultations with experts in the use of this treatment. Because the report made a number of suggestions respecting research into electroconvulsive therapy the Foundation's response dealt with the ways in which the Minister of Health could implement a programme of research.

3. A substantial effort has been put into assisting a task force (set up by the Health Research and Development Council of Ontario) which is attempting to develop a set of priorities for mental health research. A method for establishing priorities has been proposed and this method is now receiving its first test in the work of the Provincial task force. The report of the task force, when it becomes available, will raise important issues concerning the direction of the Foundation's research effort.

Foundation Programmes

As a statutory foundation, the OMHF receives most of its funds in the form of an annual grant from the Province of Ontario.

The Foundation offers **1. individual awards** to those who wish to take up careers in mental health research, and **2. support for research projects** undertaken by investigators who plan to do research in the field of mental health. Teaching in departments of psychiatry in the medical faculties of Ontario universities is supported by the Foundation, and there is also a limited programme of support for conferences and publications.

A complete listing of all research projects, major equipment grants, and individual awards funded by the Foundation in 1985-86 will be found on the following pages of the Report.

How to Apply for Grants

Copies of the Rules for Project Research, Individual Awards and application forms may be obtained from the research offices at universities in Ontario, or upon request from the Foundation.

The Ruth Schwartz Foundation

During 1985-86, a donation of $10,000. was received from the Ruth Schwartz Foundation.

Research which will provide new knowledge about what contributes to emotional disturbances in children is of particular interest to the Schwartz Foundation.

A study being conducted by Dr. Kenneth Rubin, University of Waterloo on "Peer Pairing as a Means to Ameliorate Social Withdrawal in Childhood", is such a study.

The primary focus of Dr. Rubin's study is to examine the developmental process which allows a withdrawn child to learn social interaction skills through "free-play" therapy with a younger friend. Now in the final data-analysis phase of his two-year grant, Dr. Rubin expects to confirm that a younger playmate can indeed help a "loner" overcome the fears and anxieties associated with extreme social withdrawal.

We are very grateful to the Schwartz Foundation for their financial assistance with this project.

The Ontario Mental Health Foundation
Statement of Financial Activities
Operating Section
For the year ended March 31, 1986

	1986 $	1985 $
Revenue		
Province of Ontario	**2,658,800**	2,581,300
Investment income	**84,660**	83,780
Donations (note 2)	**86,175**	–
	2,829,635	2,665,080
Expenditures		
Awards		
Research grants	**1,935,841**	1,435,064
Major equipment	**24,942**	70,790
Research associateships	**292,237**	348,588
Research scholarships	**151,987**	160,141
Fellowships		
Long-term	**97,651**	98,401
Research	**84,962**	55,399
Research studentships	**40,699**	47,269
Educational associateships	**–**	(1,145)
Clinical research and development scientists	**992**	66,150
Educational programs	**162**	145
	2,629,473	2,280,802
Administration (including fee income of $6,000 (1985 – $16,435) for administration of the COMSOC lottery grants fund and depreciation expense of $2,941 (1985 – $3,558)) (schedule of expenses)	**231,952**	213,157
Committee meetings expenses	**53,732**	43,719
Fund raising expenses	**9,051**	–
	2,924,208	2,537,678
	(94,573)	127,402
Transfer from Endowment Fund (note 2)	**78,218**	101,115
Excess (deficiency) of revenue over expenditures for the year	**(16,355)**	228,517

The Ontario Mental Health Foundation
Statement of Changes in Endowment Fund
For the year ended March 31, 1986

	1986 $	1985 $
Balance – beginning of year	**1,376,780**	1,266,533
Donations for the year (note 2)	**–**	78,218
Investment income	**134,403**	148,975
	134,403	227,193
	1,511,183	1,493,726
John Dewan Award	**–**	1,081
Fund raising expenses	**–**	14,750
	–	15,831
	1,511,183	1,477,895
Transfer to Operating Section (note 2)	**78,218**	101,115
Balance – end of year	**1,432,965**	1,376,780

The Ontario Mental Health Foundation
Statement of Changes in Lottery Fund
For the year ended March 31, 1986

	1986 $	1985 $
Balance – beginning of year	**177,654**	230,509
Investment income	**14,751**	20,825
	192,405	251,334
Awards expense		
Research grants	**39,874**	73,680
Balance – end of year	**152,531**	177,654

Statement of Changes in COMSOC Lottery Grants Fund
For the year ended March 31, 1986

	1986 $	1985 $
Balance – beginning of year	**159,007**	635,807
Interest earned	**10,208**	43,687
	169,215	679,494
Research grants	**32,788**	504,052
Administration expense	**6,000**	16,435
Publication expense	**15,059**	–
	53,847	520,487
Balance – end of year	**115,368**	159,007

The Ontario Mental Health Foundation
Balance Sheet as at March 31, 1986

Assets	1986 $	1985 $
Operating Section		
Current Assets		
Cash and investments – at cost, which approximates market, plus accrued interest	**793,765**	662,345
Advances to grantees (note 5)	**137,708**	182,455
Unspent awards receivable (note 6)	**4,966**	2,776
Prepaid expenses	**538**	991
	936,977	848,567
Fixed Assets		
Furniture and fixtures – at cost	**57,761**	57,761
Accumulated depreciation	**31,292**	28,351
	26,469	29,410
Total assets – Operating Section	**963,446**	877,977
Endowment Fund		
Cash and investments – at cost, which approximates market, plus accrued interest	**1,423,853**	1,370,870
Due from Operating Section	**9,112**	6,910
Total assets – Endowment Fund	**1,432,965**	1,377,780
Lottery Fund (note 3)		
Investments – at cost, which approximates market, plus accrued interest	**–**	170,482
Advances to grantees (note 5)	**12,048**	11,822
Unspent awards receivable (note 6)	**–**	5,100
Due from Operating Section	**149,233**	–
Total assets – Lottery Fund	**161,281**	187,404
COMSOC Lottery Grants Fund – Held in Trust (note 4)		
Cash and investments – at cost, which approximates market, plus accrued interest	**105,429**	140,101
Advances to grantees (note 5)	**–**	28,831
Unspent awards receivable (note 6)	**1,763**	29,491
Due from Operating Section	**8,176**	–
Total assets – COMSOC Lottery Grants Fund	**115,368**	198,423
Total Assets	**2,673,060**	2,641,584

Signed on behalf of the foundation

Chairman

Vice-Chairman

The Ontario Mental Health Foundation
Balance Sheet as at March 31, 1986

Liabilities and Equity	1986 $	1985 $
Operating Section		
Current Liabilities		
Research and equipment grants, fellowships and associateships payable	**181,556**	242,325
Accounts payable and accrued liabilities	**15,873**	12,891
Due to Endowment Fund	**9,112**	6,910
Due to Lottery Fund	**149,233**	–
Due to COMSOC Lottery Grants Fund	**8,176**	–
	363,950	262,126
Surplus – Operating Section		
Balance – beginning of year	**615,851**	387,334
Excess (deficiency) of revenue over expenditures for the year	**(16,355)**	228,517
Balance – end of year	**599,496**	615,851
Total liabilities and surplus – Operating Section	**963,446**	877,977
Endowment Fund		
Awards payable	**–**	1,000
Endowment Fund Balance	**1,432,965**	1,376,780
Total liabilities and equity – Endowment Fund	**1,432,965**	1,377,780
Lottery Fund (note 3)		
Awards payable	**8,750**	9,750
Lottery Fund Balance	**152,531**	177,654
Total liabilities and equity – Lottery Fund	**161,281**	187,404
COMSOC Lottery Grants Fund – Held in Trust (note 4)		
Grants payable	**–**	39,416
COMSOC Lottery Grants Fund balance	**115,368**	159,007
Total liabilities and equity – COMSOC Lottery Grants Fund	**115,368**	198,423
Total Liabilities and Equity	**2,673,060**	2,641,584

Auditors' Report to the Members of the Foundation and the Provincial Auditor

We have examined the balance sheet of The Ontario Mental Health Foundation as at March 31, 1986 and the statements of financial activities – operating section, changes in endowment fund, changes in lottery fund, and changes in COMSOC lottery grants fund for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of the Foundation as at March 31, 1986 and the results of its operations for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Chartered Accountants
June 20, 1986

The Ontario Mental Health Foundation
Notes to Financial Statements
For the year ended March 31, 1986

1. Fixed Assets and Depreciation
Fixed assets are recorded at cost less accumulated depreciation. Depreciation is calculated using the declining balance method at an annual rate of 10%.

2. Donations
Prior to April 1, 1985, donations received were recorded in the endowment fund on a cash basis. Proceeds from donations received during the year, recorded in the Endowment Fund, were transferred to the Operating Section and made available for grants and awards in the following year at the discretion of the Directors. During 1986, $78,218 representing the amount of donations received in 1985 was transferred from the Endowment Fund to the Operating Section.

Commencing April 1, 1985, all donations to the Foundation were deposited and recorded in the Operating Section's current account for use in support of research as directed by the members of the Foundation. These donations amounted to $86,175.

3. Lottery Fund
The lottery fund represents a grant from the Provincial Lottery Awards made to the Foundation through the Ministry of Health, and is designated and fully committed for use to support the Anorexia Nervosa and Enriched Program on Alzheimer's Disease projects.

4. COMSOC Lottery Grants Fund – Held in Trust
The Ministry of Community and Social Services (COMSOC) made funds available in previous years from its Lottery Grants Programme for the support of research related to Childrens' Services. During the year, The Ontario Mental Health Foundation continued to administer on-going research projects under this programme. The Foundation and the Ministry have agreed that the remaining balance in the Fund, will be used to support additional mutually acceptable grants and to publish the results of the lottery research. Once these additional commitments have been met, any unspent funds will be returned to the Treasurer of Ontario.

5. Advances to Grantees
Certain projects are approved for funding for more than one fiscal year. Advances to grantees represent unspent funds from the current year's award which are to be carried forward and added to the following year's award.

6. Unspent Awards Receivable
Unspent awards receivable represent unspent funds at the time a project ends. Grantees are required to return this money to the Foundation.

7. Award Commitments
The Foundation has made commitments of approximately $7,282, 530 to fund projects over the next eight years as follows:

	$
1987	3,032,438
1988	1,937,183
1989	786,902
1990	520,340
1991	321,663
1992	249,402
1993	253,675
1994	180,927

8. Operating Lease
The minimum annual lease payments under an operating premises lease expiring on September 1, 1989 are $27,485 for the fiscal years 1987 to 1989, and $11,452 for fiscal 1990.

9. Subsequent Event
The Ministry of Community and Social Services through an Order-in-Council has been awarded an interprovincial lottery allocation for 1986 – 1987 and beyond. These funds will be used to support applied research and program evaluation studies related to the developmentally handicapped, elderly and physically handicapped over a five year period. The Ontario Mental Health Foundation will administer these funds under agreement with the Ministry.

The Ontario Mental Health Foundation
Schedule of Expenses
For the year ended March 31, 1986

	1986 $	1985 $
Administration		
Salaries	**124,530**	110,958
Foundation's share – employee benefits	**11,903**	12,375
Office supplies and expense	**33,096**	31,637
Rent	**28,805**	26,568
Consultant's fees and expenses	**17,900**	21,508
Audit and legal	**6,725**	2,700
Telephone and telegraph	**4,716**	3,641
Depreciation – office furniture and fixtures	**2,941**	3,558
Sundry	**1,336**	212
	231,952	213,157

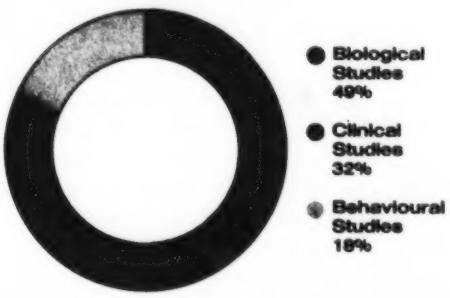
Research Grants and Major Equipment Grants 1985-86

The Foundation received 78 new research grant applications and 10 applications for major equipment. Of this number 29 new grants and 2 major equipment requests were funded for a total of $1,015,263. In addition, 24 ongoing grants in the amount of $926,610. were funded.

The pie chart shown below illustrates the areas of research that were supported.

Research Grants: 1985-86 (Funded)

Clinical investigations:	17	32%
Behavioural investigations:	10	18%
Biological investigations:	26	49%
	53	99%



Carleton University, Ottawa

Dr. H. Anisman *$33,660.*

Sensitization of catecholaminergic mechanisms by early life trauma: implications for behavioural disturbances in adulthood.
Dr. Anisman is conducting an investigation to find out if stress in early life produces "depression" in an animal model. Animals exposed to early stress may be liable to depression because the early experience alters brain chemistry.

McMaster University, Hamilton

Drs. P. Brown and G. Brown *$18,818.*

Mood and hormonal response to methylphenidate in primary depression.
Dr. Brown is examining the connection between two different biological tests for depressive disorders. The aim is to establish laboratory tests which could be used in the diagnosis of depression.

Dr. P. Chang *$54,139.*

Pseudosulfatase deficiency — mutations that escape neurodegeneration.
Dr. Chang is investigating the genetic basis of some forms of mental retardation. She begins from an observation that some people, who are not retarded, nonetheless have the same genetic deficiency that is seen in some retarded patients; she is trying to find out why it is that, in these individuals, the genetic deficiency does not lead to manifestation of the disease.

Dr. D. Elliot *$6,840.*

Cerebral asymmetry and information processing deficits in Down's Syndrome adolescents and young adults.
Down's Syndrome produces mental retardation. Dr. Elliot is trying to find out which tasks the two halves of the brain perform most efficiently in Down's patients; this research is necessary to develop ways to remedy the difficulties which Down's patients encounter.

Dr. D. Lamping *$17,685.*

Vulnerability to stress: Temporal stability and cross-situational consistency.
This study compares individuals who have high and low vulnerability to induced and naturally occurring stresses. The aim is to generate "stress vulnerability" profiles which may be of use in designing individualized treatments for people exposed to stress.

Dr. P. Links, et al *$11,935.*

Studies in borderline patients: Establishment of valid subgroups.
Accuracy of diagnosis is a recurring problem in psychiatric research. This study examines the accuracy of one diagnosis: "borderline patients". These patients are hard to diagnose and are discerned as having features peculiar to themselves. This study is intended to provide criteria to make diagnosis more reliable.

Dr. P. Links, et al *$30,334.*

Prospective followup study of subgroups of borderline patients.
This study is an attempt to examine the data used to make prognoses for the patients diagnosed as "borderline". At present the prognosis which follows from the diagnosis is uncertain so Dr. Links is testing the individual symptoms which enter into the diagnosis to show how each is related to the outcome of the illness.

Dr. R. Mishra *$39,478.*

Production of monoclonal antibodies for dopamine receptor.
Dr. Mishra is using a technique of molecular biology to develop monoclonal antibodies for the dopamine receptor. If he is successful in producing these antibodies it will be possible to carry out further work on the dopamine receptor which is thought to be important in the causation of schizophrenia.

Dr. R. Mishra *$40,244.*

Studies on interaction of prolyl-leucyl-glycinamide (PLG) and substance P with biogenic amine receptors in CNS.
Dr. Mishra is studying the action of naturally occurring neuropeptides upon receptors in the central nervous system. The results are intended to provide information about basic control mechanisms in the brain and will have implications for the therapy of tardive dyskinesia, which arises from the prolonged use of psychoactive drugs.

Dr. L. Niles *$37,175.*

Brain target sites for melatonin: modulation of cyclic nucleotide synthesis and GABAergic function.
Dr. Niles is attempting to find out where in the brain a hormone — melatonin — excreted by the pineal gland is active. The hormone is thought to be important in the causation of the affective disorders.

Drs. J. Seggie and E. Werstiuk *$35,825.*

Lithium and 24 hour rhythms.
This investigation examines the action of lithium, a drug used in the treatment of manic-depressive illness. Manic-depressive disorders are influenced by circadian rhythms; this investigation aims to examine how the drug influences both behavioural changes and the circadian output of brain hormones.

Drs. D. Streiner and H. Miller *$49,580.*

Multitrait-multimethod investigation of psychiatric diagnosis.
Many tests have been devised to aid the diagnosis of psychiatric patients. In this investigation several different tests will be compared to find out the extent of agreement between them; the long-term aim is to establish which instruments are reliable and valid.

Hamilton Psychiatric Hospital

Drs. D. MacCrimmon and R. Jones *$24,373.*

Carbamazepine therapy and procaine activated, computer analysed EEG in treatment resistant schizophrenic psychoses.
Some schizophrenic patients do not respond to ordinary treatment yet respond to anti-epileptic medication. This investigation is designed to find out if these patients can be detected by a special form of EEG examination.

University of Ottawa

Drs. P. Hrdina and Y. Lapierre *$43,980.*

^{3}H Imipramine sites in brain and platelets: Role in affective disorders and in mode of action of antidepressants.
Dr. Hrdina and Dr. Lapierre are examining in the brain and in blood cells "receptor sites" for drugs used in the treatment of depression. Understanding how the drugs work involves a better understanding of the mode of action of the receptor sites.

Dr. I. Mazurkiewicz-Kwilecki *$37,194.*

Brain histamine in aging.
Dr. Mazurkiewicz-Kwilecki is examining the brain activity of histamine. This substance is thought to be a "neurotransmitter"; she is examining how this chemical alters its activity in the aging brain.

Dr. D. Peters *$31,732.*

Prenatal stress: Effects on brain development.
Dr. Peters is examining the proposition that stress, applied to a pregnant organism, can affect the adult behaviour of the offspring. He plans to develop tests of the biochemical abnormalities produced in the brain by early stress to find out if such changes could explain abnormal conduct in the offspring of stressed mothers.

Queen's University, Kingston

Dr. J. Holden *$49,608.*

Identification of DNA markers closely linked to the mutation causing the fragile-X linked syndrome (a form of X-linked mental retardation).
In recent years a mutation leading to mental retardation has been discovered called the "fragile X" chromosome. The aim of this investigation is to establish biological tests for this condition in order to detect individuals at risk for mental retardation or who carry the defective chromosome and may therefore transmit it to their children.

Dr. K. Jhamandas, et al *$45,250.*

Evaluation of choline combinations in reversal of neurochemical and behavioural deficits associated with central cholinergic damage.
In senile dementia of Alzheimer's type a diminution in presynaptic cholinergic function is found in two areas of the brain — hippocampus and cortex. Dr. Jhamandas' work is designed to find out if the deficiency can be made good by supplying substances which make the missing drug.

University of Toronto

Dr. C. Bergeron *$59,136.*

Canadian Brain Tissue Bank.
The study of brain tissue, collected from patients who have had during life a psychotic or organic disease, is important to establishing the physiological basis of mental disease. The Canadian Brain Tissue Bank is an important source of tissue for researchers across Canada.

Dr. U. Deboni *$17,672.*

Fundamental studies on the etiology of Alzheimer's disease.
Dr. DeBoni has developed a means of inducing in a cell culture some of the pathological changes seen in the brain cells of patients who have Alzheimer's disease. He is using this model system to duplicate the pathophysiology of Alzheimer's disease, in particular, alterations in the intracellular activity of aluminum and calcium.

Dr. C. Leprohon *$40,888.*

The effect of methionine administration to rats on brain dopamine function.
Dr. Leprohon is examining chemicals which act to influence the activity of an important neurotransmitter: dopamine. Dopamine is thought to be active in a number of neurological and psychiatric diseases.

Drs. B. Madras and P. Seeman *$55,461.*

Purification of brain dopamine receptors.
This study is based on the hypothesis that schizophrenia is due to a disorder of the dopamine system. The objective is to provide a technique for detecting and purifying dopamine receptors – part of the laboratory investigation of schizophrenia.

Drs. D. McLachlan and P. Lewis *$88,450.*

Mechanisms of cell death in Alzheimer's disease.
This investigation studies changes which take place in the brains of individuals who suffer from Alzheimer's disease. Aluminum may be the root cause of the changes seen in brain cells; the experiment is designed to investigate how aluminum produces the pathological effects seen in brain cells.

Drs. D. McLachlan and A. Litherland *$9,574.*

Aluminum metabolism in degenerative brain disease employing accelerator mass spectrometry.
This investigation is designed to employ a new detection technique for aluminum which will enable the investigators to assess the amount of aluminum present in tissue and the route of aluminum once it is introduced into the body. The development of a reliable technique for measuring aluminum is likely to improve our understanding of one of the possible bases of Alzheimer's disease.

Dr. T. Petit *$70,360.*

Further studies of the neurobiology of Down's Syndrome.
Dr. Petit has found abnormalities in the brain development of patients with Down's Syndrome. The alterations may be the basis for mental retardation and the studies aim to pin-point the time at which abnormal development begins.

Dr. M. Moscovitch *$39,777.*

A comparison of memory disorders in the aged and organic amnesics.
An investigation to distinguish between memory disorders in Alzheimer's disease and in healthy older people. Some memory loss can be shown to be due to the circumstances in which elderly people find themselves; this finding leads to a variety of practical remedies for elderly patients.

Dr. P. Seeman *$45,000.*

Dopamine receptors in post-mortem schizophrenia tissues.
A leading theory put forward to explain schizophrenia is that patients have an abnormality in the activity of one neurotransmitter – dopamine. This study attempts to examine the hypothesis by examination of patients' brains post mortem.

University of Waterloo

Dr. K. Rubin *$45,816.*

Peer pairing as a means to ameliorate social withdrawal in childhood.
In some children isolation during childhood is a sign that foretells later problems of development. Dr. Rubin is attempting to find out if pathological development can be forestalled by deliberately forming pairs of children.

University of Western Ontario, London

Dr. R. Doucette *$38,759.*

Quantitative investigation of the basal forebrain in aged humans and in patients with Alzheimer's disease (including a major equipment grant).
Dr. Doucette is examining changes in a brain centre (the nucleus basalis of Meynert) which may be involved in the cause of Alzheimer's disease. It is unknown if the changes in the centre are truly critical but it is necessary to examine the hypothesis that this is a contributory factor to Alzheimer's disease.

Dr. C. Gibson *$37,632.*

Noradrenergic systems in aging and dementia.
One portion of the brain the locus coeruleus, influences locomotion, learning, memory, mood and sleep. A study of biochemistry and cell structure in the locus coeruleus will be made on brain tissue from Alzheimer patients.

Dr. I. Gotlib *$46,392.*

Depression and family interaction: The effects of maternal depression on children.
When a family includes a member who has a serious psychiatric disorder one question which naturally arises is: Does the presence of the disordered member lead to psychiatric disorders in other members of the family? Dr. Gotlib is examining the effects of depression in a mother upon the children in a family.

Dr. D. Jackson *$30,970.*

Studies in the classification of psychopathology
Dr. Jackson is developing a standard method of psychological assessment. He plans to develop an automated system for the classification and diagnosis of psychiatric diseases.

Drs. R. Rylett and E. Colhoun *$12,660.*

Application for technical assistant on project "Neurochemical and behavioural studies on cholinergic hypofunction induced in rats by choline mustard".

Drs. R. Rylett and E. Colhoun *$13,017.*

Neurochemical and behavioural studies on cholinergic hypofunction induced in rats by choline mustard aziridinium ion: A possible animal model for Alzheimer's disease.
Dr. Rylett and Dr. Colhoun are developing an animal model for Alzheimer's disease. There are a number of diseases in which the creation of an animal model provides the only means for investigating the physiological basis for the disorder; at present there is no good animal model for Alzheimer's disease.

University Hospital, London

Drs. A. Hudson and M. Silver *$38,952.*

Plasma membrane disorder and mental retardation in myotonic dystrophy
Mental retardation is associated with myotonic dystrophy when the disease occurs in early life. This investigation is aimed at early detection of the disease.

Dr. J. McGlone *$45,587.*

Early diagnosis of dementia of the Alzheimer type.
Dr. McGlone is attempting to devise a means which will enable one to diagnose at an early stage the dementia which is a feature of Alzheimer's disease. This illness, in the early stages, may be confused with other psychiatric disorders.

University of Windsor

Dr. J. Cohen *$13,517.*

Effects of chronic and prenatal alcohol exposure on learning and memory in the rat.
This investigation aims to find out how pre-natal exposure to alcohol affects learning and memory; the experiment is an analogue of the fetal alcohol syndrome.

Clarke Institute of Psychiatry

Drs. R. Cooke and J. Warsh *$18,324.*

Hydroxylated metabolites of tricyclic antidepressants: clinical significance.
This investigation is intended to find out more about the mode of action of some of the drugs, tricyclic anti-depressants, used to treat affective disorders.

Dr. S. Kish *$6,920.*

Brain glutathione metabolizing enzymes in dementia conditions.
Neurochemical and neuropathological changes in the brain have been described in patients with dementia (Alzheimer type and Parkinson's disease). Dr. Kish is examining the evidence for the hypothesis that the changes are due to a reduction of activity of two particular brain enzymes: glutathione peroxidase; glutathione reductase.

Dr. M. Konstantareas *$45,426.*

Early developmental backgrounds, cognitive, socioaffective, linguistic and behavioral characteristics of autistic and retarded children: possible interrelationships.
Little is known about the factors leading to childhood autism. This decriptive study examines a large number of possible causative factors: in the patient; family background; cognitive abilities; linguistic abilities — to find out how they may lead to manifestation of the disease.

Hospital for Sick Children, Toronto

Dr. M. Dennis *$25,877.*

Early brain damage and later intelligence.
Dr. Dennis is investigating the connexions between damage to the brain in early life and the development of intelligence in later life by studying the growth and development of children who were injured in early life.

Dr. M. Dennis *$19,804.*

Early brain damage and later cognitive functions.
Dr. Dennis is examining the connexion between early brain damage and communication skills in individuals who have been damaged in early life. She is also looking at the relationship between these communication skills and cognitive development.

Drs. S. Goldberg and C. Corter *$49,639.*

Social competence and behavior in low birthweight twins and singletons.
Low-birth-weight infants are at risk for behavior disorder because they may suffer damage undetected at birth or in hospital. This study will assess these children as they reach four years of age.

Dr. M. Lovett *$61,031.*

Parameters of treatment — specific and generalized treatment effects in dyslexic children's response to remediation.
Dr. Lovett is trying to find out what constitutes an effective treatment for specific reading disability. Dr. Lovett is examining the factors which influence treatment changes in two different kinds of remedial teaching for children with specific dyslexia.

Drs. C. Netley and J. Rovet *$41,635.*

Cognition, personality and their biosocial determinants.
Dr. Netley and his colleagues are concerned with individuals who have an unusual chromosome complement. Other investigators have looked at the medical and physical consequences of chromosome abnormalities; Dr. Netley is examining the influence of the abnormalities upon cognitive powers and personality.

Dr. R. Schachar *$45,929.*

Attention deficit disorder (hyperkinetic syndrome) attention deficit, parental psychopathology and environmental adversity.
This investigation of hyperactive children will look at: attention disorder in child patients; the presence of psychopathology in their family; the environmental adversity faced by the family. The aim of the investigation is to examine the interaction between the child, the parents' conduct and the family situation.

Toronto General Hospital

Dr. L. Becker *$30,019.*

Neuronal development in Down's Syndrome, from early gestation to old age.
This investigation is designed to find out more about the development of cells in the human brain in patients who have Down's Syndrome; it is known that the cells of Down's patients do not develop normally but it is not clear how this failure begins and at what ages it first manifests itself.

Dr. P. Garfinkel, et al *$33,000.*

Anorexia nervosa: factors related to its diagnosis and outcome.
Anorexia nervosa is a condition most commonly found amongst young women. Dr. Garfinkel is investigating the factors which predispose individuals to this illness and ways in which it may be treated. He is examining the prevalence of the condition overseas and in Canada to assess social factors in this disease.

Dr. G. Rodin *$27,340.*

The psychosocial consequences of cadaveric renal transplantation.
Dr. Rodin is examining the psychological consequences for patients who choose different forms of medical treatment. He has chosen as a topic for investigating the psychological outcomes of patients who have a potentially fatal kidney disease and who have the alternatives of dialysis or transplantation as the methods of treatment.

Toronto Western Hospital

Dr. P. Carlen *$42,817.*

Altered sedative-hypnotic drug responses and excitable membrane properties of neurons from old compared to younger mature rats.
As patients become older the efficacy of drugs alters. This study examines the effects of sedative and hypnotic drugs on older and younger neurons grown in a laboratory.

North Bay Psychiatric Hospital

Drs. M. Dongier and D. Cooper *$39,941.*

Screening alcoholics in a psychiatric hospital.
The prevalence of alcoholism in patients admitted to psychiatric hospitals is probably underestimated. Patients admitted to a psychiatric hospital will be screened by both biological and questionnaire techniques to find out how often psychiatric patients have a problem related to alcohol use.

C. M. Hincks Treatment Centre, Toronto

Dr. P. Marton, et al *$40,565.*

A controlled investigation of the relationship between affective disorder and personality disorder in adolescents.
Dr. Marton and his colleagues are investigating the relationships between disorders of mood and personality in adolescents. One of the questions addressed in this study is the extent to which disorder in adolescents is a sign that there will be a psychiatric illness in the same individual as an adult.

Surrey Place Centre, Toronto

Dr. M. Percy, et al *$41,790.*

Risk factors in Alzheimer's disease.
Dr. Percy has been investigating Alzheimer's disease as it occurs in patients with Down's Syndrome. She is developing techniques for distinguishing between those patients who develop the further disorder in addition to the mental retardation.

Dr. B. Scott *$14,346.*

Major equipment grant — an electrophysiological data acquisition and analysis system to study Down's Syndrome.
Dr. Scott will obtain equipment which will enable him to examine the changes which occur in the membranes of the cells of individuals who have Down's Syndrome.

Individual Awards 1985-86

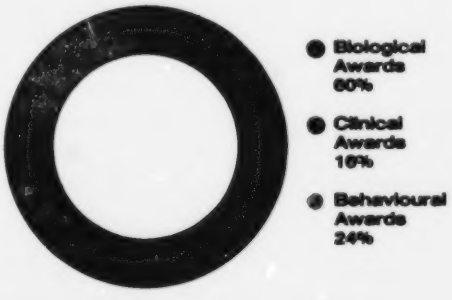
In 1985-86, 49 Individual Award Applications were received. Of this number 11 were supported for a total of $279,563.

In addition, the Foundation supported 14 ongoing Individual Awards in the amount of $440,649.

The pie chart shown below illustrates the areas of research that were supported.

Individual Awards: 1985-86 (Funded)

Clinical investigations:	4	16%
Behavioural investigations:	6	24%
Biological investigations:	15	60%
	25	100%



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Dr. E. Werstiuk

Research Student
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